ABSTRACT OF THE DISCLOSURE

A 3-phase AC current flowing to a 3-phase synchronous motor is converted through coordinate conversion to a d-axis current id and a q-axis current iq in a dq-axis coordinate system which rotates in synchronization with the motor rotation and a phase δ of a rectangular wave voltage is calculated based upon the current deviation between a q-axis current command value iq* and the q-axis current iq. A 3-phase rectangular wave voltage is generated from a DC source based upon the calculated phase δ and is applied to the 3-phase synchronous motor.